

REMARKS

This paper is responsive to the non-Final Office Action of October 15, 2009. Reconsideration and allowance of claims 1-31 and 33 are requested.

The Office Action

Claims 1 and 21 stand rejected under 35 U.S.C. § 102 over Wasinger (US 2003/0143108).

Claims 1-5, 7-10, 12, 13, 17, 21, 24, and 29-32 stand rejected under 35 U.S.C. § 103 over McVey (WO 02/066082) as modified by Wasinger, and under the Doctrine of Obviousness-Type Double Patenting over McVey (US 7,361,304) as modified by McVey '082, as further modified by Wasinger.

Claim 5 stands rejected under 35 U.S.C. § 112.

Claims 6, 25, 26, and 28 stand rejected under 35 U.S.C. § 103 over McVey '082 as modified by Wasinger, as further modified by Samuel (US 5,399,314).

Claim 20 stands rejected under 35 U.S.C. § 103 as being unpatentable over McVey '082 as modified by Wasinger, as further modified by McGady (US 4,067,691).

Claims 22 and 23 stand rejected under 35 U.S.C. § 103 over McVey '082 as modified by Wasinger, as further modified by Sulakvelidze (US 6,699,701).

Claims 19, 25, 26, and 28 do not stand rejected on art and are understood to contain allowable subject matter.

Claims 14-16, 18, and 23 have been amended to become dependent method claims and have thus become elected claims.

Claim 11 stands withdrawn as being a non-elected claim pursuant to a Restriction Requirement.

Claim 27 is directed to a non-elected species, but will be allowed at such time as its parent claim(s) is/are allowed.

Claim 32 has been cancelled.

Claim 33 is newly added.

**The Claims Distinguish Patentably
Over the References of Record**

Claim 1 calls for introducing a deactivating gas into a plurality of subregions, which subregions are interconnected in such a manner that air flows between the subregions. For example, in open architecture buildings, space and air flow freely among subregions rather than having discrete rooms. Atriums and other soaring spaces are typical. Due to such openness, such buildings are not readily treatable on a room-by-room or independent section basis.

McVey '082 discloses what might be considered a sterilizer with a "supersized" sterilization chamber **10**, such as a room with a volume of 1000x4000 cubic meters. For example, the room **10** might be a warehouse into which large quantities of goods are loaded, e.g., by the pallet, for sterilization. Indeed, a room of this size can even be used for large objects such as an ambulance, fire truck, aircraft, or the like, which had been dispatched to a contamination scene. McVey does not disclose a space which has a plurality of subregions which are interconnected in such a manner that air flows between the subregions.

Wasinger does not cure this shortcoming of McVey. Wasinger discloses a building **40** with a plurality of floors which, as described, are isolated such that each is treated independently by using control valves **21** to send a sample from each floor to a monitor **19** to adjust ozone production. The ozone gas is delivered through a manifold **33** and delivery lines **24** to each floor individually. The HVAC system of Wasinger has inlets **12-15** which draw gas from each floor, intermix the gases, feed the gases through unit **10**, and return the gases to all floors.

Claim 1 of McVey '304 focuses on treating a building section by independent section.

Claim 1 further calls for circulating the deactivation gas within each region. Claim 1 further calls for circulating the deactivation gas from subregion to adjoining subregions. Wasinger does not disclose circulating the ozone gas from one floor to an adjoining floor(s). The only air movement between floors is when exhausted air from returns **12-15** is drawn from each floor and intermixed by the HVAC system to be blended and redistributed among the floors. Such circulation does not describe circulating the ozone gas from one floor to an adjoining floor.

However, it should be noted that unit **10** is described at page 2, the middle of paragraph [0029], as being an ozone destruction unit. When the ozone in the recirculated air is destroyed before being fed through the HVAC system to the various floors, the deactivation gas is not circulated among adjoining regions.

Claim 1 further calls for, based on sensed concentrations of the deactivating gas, controlling both the introducing of the deactivation gas and the circulation of the deactivation gas from subregion to adjoining subregion. Wasinger does not disclose both controlling the introduction of ozone and controlling the circulation of the ozone from floor to floor to maintain the ozone concentration on each floor within tolerances.

Accordingly, it is submitted that **claim 1 and claims 2-4, 6-10, 12-14, 20-28 and 31 dependent therefrom** distinguish patentably and unobviously over the references of record.

Claim 19 does not stand rejected on art. Claim 19 has been placed in independent form including the subject matter of its parent claims 1 and 2. Accordingly, it is submitted that **claim 19 and claims 5, 15-17, and 33 dependent therefrom** distinguish patentably and unobviously over the references of record.

Claim 29 calls for a computer which performs a flow dynamics modeling routine and which controls fans in accordance with the flow dynamics modeling routine. McVey '082 makes no mention of flow dynamics modeling. Wasinger fails to cure this shortcoming of McVey. Rather than using flow dynamics modeling, Wasinger appears to treat each floor as a separate volume to be disinfected. There is no suggestion of flow between the floors of the building of Wasinger of a nature that is controllable or otherwise amenable to flow dynamics modeling. Moreover, Wasinger does not disclose fans, much less fans which are controlled in accordance with a flow dynamics modeling routine. Accordingly, it is submitted that **claim 29 and claim 18 dependent therefrom** distinguish patentably and unobviously over the references of record.

Claim 30 calls for a method of deactivating biological or chemical agents in a large volume space with a convoluted configuration. The sterilization chamber **10** of McVey '082 is a large room or enclosure. Wasinger does not cure these shortcomings of McVey. The building **40** of Wasinger has four discrete floors.

None of the floors of Wasinger nor the building are described as having a convoluted configuration. Having the convoluted configuration is an issue because it can defeat the disinfection process of Wasinger or McVey. Wasinger and McVey each treat the target volume as a unit. Due to the convoluted configuration, the large volume space is not readily amenable as being treated as a unitary space, raising issues regarding how to assure that the various nooks and crannies of the convoluted configuration are, in fact, treated.

Claim 30 further calls for the subregions to be physically interconnected such that air flows freely between the subregions. McVey '082 discloses a single enclosure **10** and does not disclose subdivisions. Wasinger does not cure this shortcoming of McVey. Wasinger discloses a building **40** with four discrete floors, with no suggestion that air can flow freely between the floors. Even if the building **40** has stairwells to move between floors, fire codes generally require automatic door closures on such stairwells to provide safety to the occupants in the case of an emergency evacuation. Thus, free flow of air between the floors is not only not disclosed, but is not expected.

Claim 30 further calls for controlling the circulation of the deactivation gas and air from one subregion to adjoining subregions. Again, McVey does not show subregions. In Wasinger, the building **40** has four discrete floors. There is no disclosure of controlling the circulation of the ozone and air from one of the floors to an adjoining floor(s).

Accordingly, it is submitted that **claim 30** distinguishes patentably and unobviously over the references of record.

Claims 11 and 27

Claim 11 has been amended to parallel the amendments made to claim 1. It is again submitted that the Examiner's search for claim 1 has provided a full and complete search for the apparatus of claim 11. It is requested that the Examiner reconsider the Restriction Requirement and allow claim 11 along with claim 1.

Claim 27, being directed to a non-elected species, should now be allowed along with its parent claims.

Double-Patenting

It is submitted that the present claims would not provide a timewise extension of the "right to exclude" granted by US 7,361,304 and are patentably distinct thereover. Claim 1 of the present application, for example, offers an alternative to claim 1 of the '304 patent. Claim 1 of the '304 patent calls for a plurality of independent HVAC ductwork subsystems. The present claim 1 does not address HVAC systems, much less HVAC subsystems. Claim 1 of the '304 patent further calls for decontaminating the HVAC subsystems in more remote locations from a contamination site first and then progressively decontaminating the HVAC subsystems closer to the decontamination site. Claim 1 of the present application does not address decontaminating HVAC subsystems, much less decontaminating HVAC subsystems in a particular order. To the contrary, claim 1 addresses decontaminating a large volume with a convoluted configuration including subregions which are interconnected in such a manner that air flows freely between the subregions. Thus, contrary to claim 1 of the '304 patent which calls for dividing the HVAC ductwork into a plurality of independent ductwork systems, claim 1 of the present application addresses a plurality of interconnected subregions.

McVey and Wasinger do not cure these shortcomings. In order to bring claim 1 within the purview of the '304 patent, the combination of McVey and Wasinger would need to be used not to modify, but to eliminate substantially all of the limitations of claim 1 of the '304 patent. The determining step of claim 1 of the '304 patent is not an element of claim 1 of the present application. The step of dividing an HVAC network into a plurality of HVAC ductwork systems of claim 1 of the '304 patent would need to be eliminated or undone in order to create a plurality of connected subregions. The step of circulating the decontaminant such that the decontamination of the HVAC subsystems occurs in more remote locations first and then progressively closer to the decontamination site would also be eliminated or completely undone in order to meet the limitations of the present claim 1 requiring the deactivation gas to be circulating from one subsystem to an adjoining subsystem.

First, it is submitted that it is improper to combine references in order to undo and eliminate the limitations of the '304 patent. Second, it is submitted that

neither McVey nor Wasinger, nor the combination thereof, teach eliminating the steps of claim 1 of the '304 patent.

Moreover, by the time the Examiner is done eliminating the steps of claim 1 of the '304 patent which are in conflict with present claim 1, the Examiner is left with nothing more than "a method of decontaminating buildings".

Claim 9 of the '304 patent calls for alternately circulating the hydrogen peroxide vapor in one direction and then the opposite direction through the ductwork and then allowing dwell time. Again, this limitation is not an element of any claim. Rather, it is an independent patentable concept.

Claim 13 of the '304 patent, like claim 1 of the '304 patent, calls for dividing the ductwork into a plurality of HVAC systems and for progressively decontaminating the HVAC subsystems from remote towards closer to the decontamination site. Again, this and other limitations of claim 13 are not a part of the present claims.

Claim 16 of the '304 patent, like claim 9 of the '304 patent, calls for alternately circulating the vapor decontaminant in one direction and then the opposite direction. Again, this and other limitations of claim 16 of the '304 patent are not an element of the present claims.

The Examiner is reminded that the purpose of double-patenting is to prevent the improper timewise extension of the rights of the granted patent, as the Examiner states in paragraph 14 of the Office Action. When applying a double-patenting rejection, it is the scope of the claims of the issued patent which must be considered. It is for the Examiner to show why the issued patent and the claims of the present application are not patentably distinct. It is submitted that the Examiner in his double-patenting rejection has looked not to the scope of the claims of the '304 patent but to the disclosure of the '304 patent. It is submitted that the Examiner has not made a proper double-patenting rejection because the application of the references in paragraph 15 is set forth in the format of a combination of references, analogous to a § 103 rejection rather than addressing the limitations of the claims, and using the teaching references to show a lack of patentable distinction between the claims of the '304 patent and the claims of the present application.

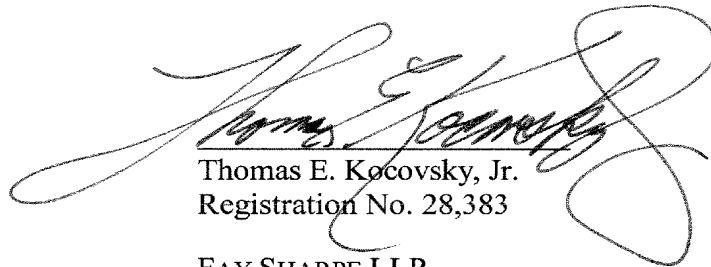
Accordingly, it is submitted that all claims distinguish patentably over the claims of the '304 patent.

CONCLUSION

For the reasons set forth above, it is submitted that claims 1-31 and 33 distinguish patentably and unobviously over the references of record. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, the Examiner is requested to telephone Thomas Kocovsky at 216.363.9000.

Respectfully submitted,

A large, stylized handwritten signature in black ink, which appears to read "Thomas E. Kocovsky, Jr.", is written over the printed name and registration number.

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